Automotive News

November 6, 1989

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64th year—$60.00 per year, $1.50 per copy

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Ford's $2.5 billion is just the start of Jaguar investment

By Daniel Ward
STAFF CORRESPONDENT

LONDON — When the Ford bid came last week, the only surprise was that General Motors abandoned its much heralded defense of Jaguar's independence without buying a share in the British company.

With Lindsey Halstead, chairman of Ford of Europe sitting alongside him, Jaguar Chairman Sir John Egan revealed Thursday that he had warned GM two weeks before that Ford would make a full bid. General Motors was also informed that Jaguar executives were prepared to consider written proposals from Ford, though it would stop short of face-to-face negotiations while the nine-month talks continued with GM.

Ford's bid caught GM a week away from announcing its plans, first to buy a 15 percent stake in Jaguar and then increase this to 29.9 percent when the golden share was waived. Press reports had suggested GM would offer up to £8 ($12.55) a share to acquire 15 percent.

In a terse statement after the Ford bid had been accepted by Jaguar, GM said, "After an intensive review of Jaguar's products and plants and in view of the losses currently being sustained by them, together with Jaguar's significant future cash and other requirements, GM concluded that the maximum value that could be assigned to all of the Jaguar shares was very significantly below the £8.50 ($13.40) being offered and the premium of approximately £1.3 billion ($2 billion) over book value at year-end could not be justified."

The price paid by Ford is more than five times Jaguar's net asset value.

Ford believed it was worth paying a high price to fulfill the company's key strategic objective to enter the luxury car market. While Halstead conceded that Jaguar lost money after tax in the first half of 1989, he emphasized it made profits totaling over £500 million ($800 million) in the five previous years and achieved a highly respectable 7.5 percent return on sales.

He added, "It would probably have cost us more to replicate what we are buying today."

He added, "The luxury segment is going to grow faster than the market as a whole, so we want to see Jaguar take the lead in this growth, and over the next five years we would expect a very significant improvement in Jaguar profits."

Stephen Reitman, motor industry analyst at stock brokers Phillips & Drew, said, "It is very clear that Ford sees Jaguar as a long-term investment for the year 2000 and beyond, and at least the rest of the business will be providing the cash flow for Jaguar."

The £1.6 billion ($2.5 billion) purchase price is only the start of Ford's investment. Money will be needed for new models and better plants.

The future model program as far as it is known includes a facelifted XJS and introduction of a 4-liter XJS in 1990; launch of the V12 XJ6 with minor styling changes in 1991; launch of the F-type two-seater, powered by 340 horsepower turbo 4-liter,

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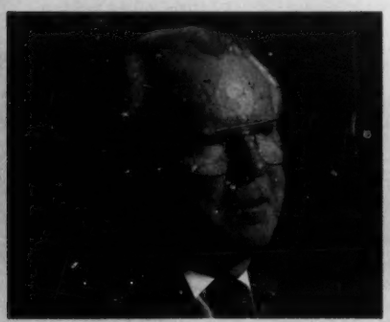
JAGUAR

More on Ford-Jaguar:

Jag dealers to Ford: Keep Jag a Jag, **Page 54**
Ford looks for 'long term' payoff, **Page 54**
'England's Iacocca' saved Jaguar from ruin, **Page 54**
Buyout caps Jaguar's roller-coaster ride, **Page 55**



GM's Roger Smith

AUTOMOTIVE NEWS/JOE WILSSENS PHOTOS

UAW's Owen Bieber

Chrysler dismantles marketing divisions

By Mary Connelly
AUTOMOTIVE NEWS STAFF REPORTER

Chrysler Motors will consolidate its three existing divisional marketing groups into one operation.

The change, to be announced this week, is part of Chrysler's continuing efforts to streamline operations.

Separately, Chrysler Corp. plans to disband the company's four-year-old holding company structure by year's end. Chrysler Corp. is the holding company for Chrysler Motors and other subsidiaries.

The holding company failed to offer significant advantages because the company did not diversify as much as it had intended.

Under the marketing realignment, Chrysler-Plymouth, Dodge and Jeep-Eagle will continue as marketing divisions. But the change is expected to affect titles and responsibilities of mid- and upper-level marketing personnel who operate the divisions.

Currently, Joseph Campana is vice president of Chrysler-Plymouth, John Damoose is vice president of Dodge car and truck, and Joseph Cappy is vice president of Jeep-Eagle. Those operations will fall under one line of authority.

As it tried to differentiate its products in the market, Chrysler adopted a brand management system under which each of its car and truck brands had a marketing manager and a product manager. The realignment is expected to abolish that approach.

Instead, it is expected that vehicle platform marketing directors may be created as well as a vice president of marketing, according to one company source. Such a structure would mirror an engineering department reorganization earlier this year centered on platform groups.

Chrysler is streamlining its structure and consolidating operations as it seeks to meet its primary aim of becoming the low-cost domestic producer. The company is battling with lower sales and reduced market share in 1989.

The company confirmed that Chrysler also is moving to disband the corporate holding

see CHRYSLER, page 53

UAW to fight plant closings

Union wants tighter rein on makers in '90 contracts

By Mary Connelly and Michelle Krebs
AUTOMOTIVE NEWS STAFF REPORTERS

In 1990 national negotiations with the Big 3, the UAW will try to narrow the opening in current contract language that has allowed plants to be idled because of weak sales of their products.

UAW President Owen Bieber said in an interview that the union is studying the issue of volume-related layoffs as it prepares its strategy on job security provisions.

Asked how the UAW might prevent plant closings such as those announced by General Motors during the current contract, Bieber said, "We're working now on some ideas. Job security will continue to be an important item when we sit down at the collective bargaining table. We'll try to find new ways to guarantee that job security."

The current UAW contracts with the Big 3 contain job security provisions that prohibit plant closings except in cases of weak product sales. GM has idled plants in Pontiac, Mich.; Leeds, Mo.; and Framingham, Mass., since the current contract was negotiated. A fourth plant is scheduled to close next spring.

see LABOR, page 56

Omni, Horizon to be dropped

By Michelle Krebs
AUTOMOTIVE NEWS STAFF REPORTER

DETROIT — Chrysler Corp. said it will close its old Detroit plant as it discontinues production of its slow-selling Dodge Omni and Plymouth Horizon subcompacts. Chrysler is also closing a parts plant in Wisconsin and placing its St. Louis car assembly plant on one shift.

The moves come on the heels of Chrysler Chairman Lee Iacocca's recent comments in an Automotive News interview that the automaker would be forced to close plants in the face of tough times over the next 15 months.

see CARS, page 53

GM consolidation may lead to plant closings

By Michelle Krebs
AUTOMOTIVE NEWS STAFF REPORTER

DETROIT — General Motors is considering consolidating its engine, transmission and foundry operations into one super group like its car groups, potentially affecting 72,000 employees.

GM spokesmen said the automaker believes one group focused on the design, development and manufacturing of powertrains could respond quicker to changing market demands. It also would enable GM to move faster when stricter fuel economy and emissions standards are enacted by the federal government. Powertrain operations now are spread throughout the corporation.

GM is expected to close some powertrain-related plants in the 1990s, not as part of the consolidation, but as part of GM's corporate plan to boost factory utilization. GM plans to increase its factory use rate to 100 percent by 1992. The rate has been 75 to 80 percent the past couple years.

Company and union sources say that as many as a half dozen components plants could close. Likely candidates are those with no future products scheduled.

GM spokesmen said the consolidation study has nothing to do with possible plant closings. Market conditions dictate plant closings, they added.

Last week, GM told workers at its engine, transmission and foundry plants about the study. By year-end, a study committee must develop proposals for an organizational

see GM, page 56

NEWSPAPER
IN

Chrysler minivans in Europe?

Chrysler is close to a decision to build a four-wheel-drive version of its minivan in Europe. Details on Page 2

Ford's Crown Victoria is revamped for the 1992 model year — notice the Jaguar-like roofline. SEO PHOTOS

Looking ahead at Crown Vic, Mark, minivan

By Laura Clark
AUTOMOTIVE NEWS STAFF REPORTER

Two major products in Ford Motor Co.'s future stable show the automaker will retain the aerodynamic shape into the 1990s.

Prototypes of the replacements for the Ford Crown Victoria and Lincoln Mark VII were spied in the Detroit area last week. Also uncovered was a test mule for the Nissan/Mercury minivan.

The replacement for the Crown Victoria/Mercury Grand Marquis will debut midway through the 1991 model year with a more rounded exterior than its predecessor. The front-end design picks up styling cues from the Taurus, Thunderbird and a Lincoln.

The Crown Victoria features wraparound body side moldings and rocker panels that are similar to those on the Lincoln Town Car. The car will be powered by Ford's new modular 4.6-liter V-8 engine.

The front-end styling theme for the Mark VII replacement features a sloping, aerodynamic version of the car's distinctive grille.

In this photo, a current-generation Thunderbird is fitted with the Lincoln's fenders and grille to test for cooling problems. The new Lincoln bows in mid-1992 and may be called Mark VIII.

The Nissan/Mercury front-wheel-drive minivan appears to have dimensions similar to those of the Plymouth Voyager. The test vehicle pictured here is disguised, composed of parts from the Aerostar and Escort parts bins. Though the actual exterior styling is expected to be different, the picture gives an idea of the size of the Nissan/Mercury minivan.

A test mule, above, gives an idea of the size of Nissan/Ford minivan. Front sheet metal for the Mark VII, right, is bolted to a Thunderbird.

1992 U.S.-built Camry due for Japan export

By Lindsay Chappell
AUTOMOTIVE NEWS STAFF REPORTER

Toyota Motor Co. will design a new, larger version of its best-selling Camry sedan for production in Kentucky, with an eye toward exporting 40,000 annually to Japan in 1992.

Toyota buys American, Page 53

The plan is part of a newly unveiled three-year program to increase U.S.-to-Japan exports and ease trade friction. It will also mark another step in the Japanese transplants' foray into production of ever-larger vehicles.

The introduction of the larger Camry will probably coincide with a curtailment of Camry production in Japan, a spokesman for Toyota Motor Sales U.S.A. said. Toyota manufactures the compact in Japan and in Georgetown, Ky., but most of the cars are sold in the United States.

Toyota also said the new model will be exported as a right-hand-drive vehicle. U.S. manufacturers historically export only left-hand-drive autos, regardless of the preference of the importing market.

The company's plan would see $2.1 billion a year in U.S.-made automotive goods and services exported by the end of 1992, a 250 percent increase over this year.

Included in the program are:

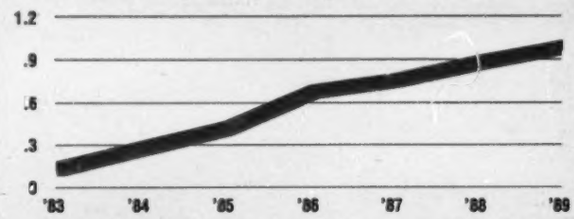
- 40,000 units of a "yet-unnamed model" — the larger Camry — to be produced at the $800 million Georgetown plant, which opened last year. Georgetown's 200,000-unit capacity will be increased to accommodate the new model. Export will begin immediately after its debut in 1992.

The company hasn't determined the total new capacity, the resulting amount of new plant investment and the increase in the work

see TOYOTA, page 53

Transplant production in U.S.

At the start of the decade, there was one U.S. transplant automaker: Volkswagen. Since then, VW has closed its plant and seven Japanese firms have set up shop. Their combined output including cars built for Big 3 partners has topped the 1 million mark for the first time in any single year. Figures in millions.



Includes production figures for Honda, Mazda, Diamond-Star, Nissan, NUMMI, Toyota and Volkswagen. Subaru-Isuzu Automotive numbers unavailable. Production started in September.

AUTOMOTIVE NEWS / CHARLOTTE WINTER

TRANSPLANT PRODUCTION IN UNITED STATES

	1983	1984	1985	1986	1987	1988	1989 (Jan.-Oct.)
Honda	55,337	138,578	145,337	248,159	321,862	365,832	306,596
Mazda	0	0	0	0	4,326	163,714	171,196
Diamond Star	0	0	0	0	0	0	68,070
Nissan	19,979	100,510	151,232	173,263	213,194	205,668	198,578
NUMMI	0	0	64,601	205,854	182,790	126,847	165,470
Toyota	0	0	0	0	0	18,527	119,617
Volkswagen	98,207	74,785	96,458	84,397	66,193	35,997	0
TOTAL	173,523	313,873	457,628	711,673	788,365	916,585	1,029,527

NOTE: Subaru-Isuzu automotive numbers unavailable. Production started in September.

Vitulli leaves Chrysler for Mazda job

By Dutch Mandel
AUTOMOTIVE NEWS STAFF REPORTER

The appointment of Clark J. Vitulli as senior vice president and general manager of Mazda Motors of America gives the Japanese company strong insight into the domestic luxury car market and pumps new blood into a firm that has undergone extensive organizational changes in the past year.

Vitulli, a 20-year sales and marketing executive of Chrysler brand automobiles, was named last week as the company's top non-Japanese executive.

Most recently, he has been serving as general marketing manager of Chrysler Division with responsibility for developing and executing marketing, merchandising and advertising programs for Chrysler brand vehicles. Before assuming that post, he was Chrysler's regional sales manager in California.

Vitulli, 43, said he hadn't been planning to leave Chrysler and that he mulled over the Mazda proposition for two months before accepting. He will be in charge of all of Mazda's U.S. sales, service, parts and marketing operations and will report to Yoshi Taura, president of Mazda Motors of America. He will also be a member of the company's executive management committee.

Vitulli

A Chrysler spokesman said of Vitulli: "He is a fine gentleman, and we wish him well."

His appointment puts in place the final block of Mazda's reorganization plan — undertaken more than a year ago — which sought to unify its sales operation and bring it under the aegis of one executive.

Until Vitulli's appointment, that responsibility fell to George McCabe, who remains group vice president of operations, responsible for sales operations, dealer development, advertising and Mazda's five regional offices. McCabe will report to Vitulli.

Vitulli said that although he approaches his first "new" job in 20 years with some trepidation, he feels strongly about his ability.

"It will take drawing on all the experience I've had in the past 20 years to make this venture successful," he said. "But I see this as a totally positive move."

Vitulli said he welcomes the opportunity to go to a company that has strong product and a well-defined long-term strategy.

"It has been said that Chrysler is a marketing company," he said. "I will say today that is not the only truth. They have a wonderful lineup of cars — now, and in the future.

"The product Mazda has now. . . . boy, is that a great opportunity. All of the vehicles are solid. If I can take my marketing expertise with me and apply that to Mazda, I think it will be a real good marriage."

According to Vitulli, one of the first things Mazda employees and dealers will learn is that he will key on making Mazda unified.

"I am a real 'people' person and a team player," Vitulli said. "If there is something I can do with Mazda initially — to gain market share and profitability — I will."

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64th year—No. 5312

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AUTOMOTIVE NEWS (ISSN 0005-1551) is published weekly except semiweekly the fourth week in May at 1400 Woodbridge, Detroit, MI 48207. Second-class postage is paid at Detroit, MI and at additional mailing offices. Postmaster: Send address changes to AUTOMOTIVE NEWS, Circulation Department, 965 E. Jefferson, Detroit, MI 48207.

Transplants make a million

By Lindsay Chappell
AUTOMOTIVE NEWS STAFF REPORTER

NASHVILLE, Tenn. — Japanese transplant automakers and their joint U.S. production ventures have passed a milestone that may seem insignificant in a few years: Their combined U.S. output passed the 1 million vehicle mark last month for the first time in any single year.

Transplant factories reported production of 1,029,527 cars and trucks through Oct. 28. That compares with 751,668 for the same period in 1988.

The previous annual record was set last year, when transplants built 916,585 vehicles. That figure included the last cars produced at Volkswagen of America's now-closed plant in Pennsylvania.

According to the transplants' various plans, this year's output should pass 1.2-million units. Production from two new plants is coming on stream. Numbers from Subaru-Isuzu Automotive in Lafayette, Ind., which opened in September, will begin showing up this month. And Honda of America Manufacturing's new plant in East Liberty, Ohio, starts production in late November.

In addition, two other plants are completing their first full year of operation. The Toyota Motor Manufacturing USA plant in Georgetown, Ky., and Diamond-Star Motors, a Mitsubishi-Chrysler venture, are both running at full volume now for the first time.

This year's million-unit volume includes General Motors vehicles built at New United Motor Manufacturing, a joint venture with Toyota in Fremont, Calif.; Chrysler vehicles built at Diamond-Star in Normal, Ill.; and Ford vehicles built by Mazda Motor Manufacturing (USA) in Flat Rock, Mich.

For 1991, the Japanese transplants have targeted output of 1.7 million vehicles.

SERVICE MANAGEMENT

Crash parts studied; no decision

By Francis J. Gawronski
AUTOMOTIVE NEWS STAFF REPORTER

After studying non-original-equipment-manufactured crash parts, a Canadian consumer protection group has taken an impartial position in the controversy between the automakers and the insurance industry over their use to repair vehicles.

In its Report on the Aftermarket Body Shop Industry, the Automobile Protection Association of Montreal and Toronto said, "At this time, the association cannot issue a blanket approval or condemnation of non-OEM body parts. In many cases, the choice the consumer has to make is not between non-OEM and new-OEM parts, but rather non-OEM and used parts."

The association noted pros and cons of using either OEM or non-OEM crash parts. The survey and report were funded by the Canadian Department of Consumer and Corporate Affairs.

"This is the most extensive report published in Canada and, to our knowledge, in all of North America on the aftermarket body parts industry," said George Iny, president of the consumer association.

Iny said many auto insurance companies in Canada, as in the United States, specify that damaged vehicles be repaired with sheet metal parts made by independent companies, which are less expensive than those made by the OEM.

On the other hand, he said, automakers allege that such non-OEM parts are inferior and that consumers whose vehicles are repaired with those parts are being shortchanged by the insurance industry.

The report also noted that insurance companies, directly or indirectly, have assisted non-OEMs "by carrying on public relations and lobbying activities, testing, setting up the Certified Automobile Parts Association program to promote and identify high-quality non-OEM body parts, providing legal assistance and even lending money to individual non-OEM collision parts manufacturers."

The non-OEM share of the body parts market has increased from insignificance in 1980 to 10 percent of the market. Last year, an estimated $90 million of the $900 million spent in Canada was spent on non-OEM parts.

"Caught in the middle is the consumer," Iny said.

In its report, the consumer association said 15 of the 20 body shops in the survey claimed that non-OEM parts were always inferior to OEM parts.

At the time the report was compiled, the consumer association said, most non-OEM crash parts were not even conditionally certified by the non-OEM industry's own certification association, and very few had passed that group's corrosion-resistance test.

The difference between repairs made with OEM and non-OEM parts appears to be mostly one of fit and finish. Safety is not a factor, the report said. The consumer group said that OEM corrosion protection is superior, but it found no evidence that non-OEM parts were rusting out in use, and it said that corrosion protection is improving.

The report also noted that savings claimed by the insurance industry from using non-OEM parts are often exaggerated and do not take into account automaker pricing strategies or differences in parts quality.

Therefore, the report said, a large part of the insurance industry's savings "may well be at the expense of either the body-shop operator, who must spend additional time (unpaid) to install and finish a part, or the consumer, who may obtain a lower-quality repair."

Also, there is no solid evidence that lower collision parts costs are being reflected in the insurance premiums the consumer pays.

The report noted that the automakers' pricing appears to be determined more by what the market will bear than by actual production cost.

In Canada, the report noted, a 1988 Ford Tempo fender (when no non-OEM replacement was available) was priced 80 percent higher than the similar, but not identical, 1987 OEM Tempo fender when a non-OEM replacement was available.

More than half of the respondents in the survey claimed that auto dealers sometimes reduce the price of the OEM body parts in the face of non-OEM parts competition.

The consumer association said it believes that reputable independent sources of replacement parts benefit consumers and that non-OEM parts manufacturers should be encouraged. Many non-OEM parts are still not up to OEM standards, the consumer group said. It endorsed industry efforts to raise the quality of non-OEM parts through certification.

The report said several insurance companies already provide disclosure statements to consumers when non-OEM parts are used. It encouraged the industry to make such disclosures universal.

The report advised owners of late-model vehicles in good condition to insist on OEM or certified non-OEM parts.

Ford Job Fair draws recruits

Garry Frederick, Detroit Ford district service manager, left, works the second Dealership Service Technician Job Fair. Sponsored by Ford parts and service division, the fair was held in Dearborn, Mich., and attracted more than 750 applicants. The 30 participating Detroit-area Ford and Lincoln-Mercury dealers hired 77 recruits and scheduled second interviews for 102 more. The first job fair was held in Atlanta in June, with additional fairs scheduled for other cities.

Service volume declines again; September 4.7% below last year

By Francis J. Gawronski
AUTOMOTIVE NEWS STAFF REPORTER

Service and parts business in the shops of new-car dealerships declined for the second straight month in September, but the year-to-date results for the first nine months of 1989 remained above those of a year earlier.

In September, shop volume dipped 4.7 percent below the results in September 1988 and was 3.4 percent less than the business reported in August 1989, according to the Automotive News Service Index. Shop business in August was down 1.3 percent from the volume recorded in the same month in 1988.

Service and parts business for the first nine months of 1989 was 1.6 percent ahead of the volume for the same period a year ago.

The Service Index is compiled from figures on parts and service supplied by a cross-section of the nation's dealerships.

A dealer in New England attributed the downturn in service and parts business to fewer recalls of cars by the automakers.

A retailer in the Midwest pointed to fewer business days — 20 — in September and a "general economic downturn in this part of the country" for the slump.

Although gross profit on all labor, parts and accessories sales in September declined 5.5 percent below the total reported in the same month a year ago, the year-to-date profit was 2.9 percent above the year-earlier figure.

Sales of all parts and accessories were up 4.5 percent in September and 0.5 percent for the first nine months, while repair orders written dropped 4.8 percent for the month and 2.2 percent for the year-to-date period.

SERVICE INDEX 95.3★

	Sept. '89 vs. Sept. '88	Jan.-Sept. '89 vs. Jan.-Sept. '88
Gross Profit on All Labor and P&A Sales	−5.5%	+2.9%
Repair Orders Written	−4.8%	−2.2%
Total Labor Sales (Customer & Warranty)	−4.0%	+2.4%
Shop Parts Sales (Customer & Warranty)	−6.6%	+1.5%
Sales of All P&A	+4.5%	+0.5%

★ Survey by Automotive News shows that dealers' service and parts business in September 1989 was 95.3 percent of business in September 1988. Service business in the first 9 months of 1989 was 101.6 percent of business in the corresponding period in 1988.

Total labor sales (customer-paid and warranty) dipped 4.0 percent in September but were up 2.4 percent for the first nine months, while shop parts sales (customer-paid and warranty) dropped 6.6 percent in September and 1.5 percent in the January-September period.

Purolator, Facet filter activities merged

ELMIRA, N.Y. — Facet Enterprises has consolidated two of its subsidiaries — Purolator Products and Facet Automotive Filter Co. — to form what it claims is the world's largest automotive filter manufacturing and marketing company.

James R. Malone, Facet president and chief executive, said the new company, Purolator Products, will make and market filters for retail, private label and original-equipment segments of the auto industry.

Russell D. McBroom, who served as president of Facet Automotive since 1985, has been named president of Purolator Products, which will remain headquartered in Tulsa, Okla. Facet Automotive and Purolator had operated side-by-side since Facet Enterprises, a subsidiary of Pennzoil Co., acquired Purolator in 1987.

Malone said the new Purolator Products has an estimated market share of more than 30 percent.

SERVICE BRIEFS

Dexron II monitoring

YPSILANTI, Mich. — General Motors' Hydra-matic Division has expanded its quality monitoring program for Dexron II automatic transmission fluids.

According to Thomas R. Zimmer, Hydra-matic general manager, the move followed the January transfer of administrative responsibilities for the Dexron II program from General Motors Research Laboratories to Hydra-matic.

Zimmer said Hydra-matic will expand field sampling activities to include all Dexron II licensed fluids. The program should ensure continued product compliance to Dexron specifications and eliminate unauthorized and improper use of the trademark, he said.

Sampling will begin in North America this year, with plans to become global in 1990, Zimmer said.

Eaton training clinics

KALAMAZOO, Mich. — Mobile training clinics to instruct truck service personnel have been developed by Eaton Corp.'s truck component marketing division.

The 12 Eaton Roadranger Mobile Training Clinics will supplement regional service training by offering mini-clinics at fleet or dealership locations, according to Bruce Daniels, Eaton's Great Lakes region service manager.

"When we hold training sessions at a regional office it's not always feasible for some dealerships or fleets to release their service personnel for two or three days," Daniels said. "Our new mobile training clinics are a fast means of providing consistent and up-to-date on-site instruction."

Classes include instruction on how to read service manuals, parts books and illustrated parts lists. Troubleshooting videos are shown on subjects such as rear seal maintenance and gear failure analysis.

Fuel injector cleaning

DALLAS — A multifaceted machine that makes it possible to clean and test electronic fuel injectors off the vehicle has been introduced by the automotive electronic division of New Age International.

Called EFI Enterprise 2001, the unit was developed in Australia and is said to handle electronic, mechanical and throttle-body injectors up to 12 at a time.

The 2001 has a closed reservoir, pump and filtering system. The solvent is non-toxic and meets EPA and Occupational Safety and Health Administration standards, according to Frank Horwood, general manager of export sales for New Age.

In addition to back flushing to clean the micron filter of trapped debris, the 2001 is said to perform pulse and tip cleaning and pattern, leak-down and flow testing. It also allows the technician to control rpm, pulse width and pressure and provides seven computer-simulated engine running modes to choose from for his work.

Merwin replaces Richey

BEDFORD, Texas — G.W. Merwin III has been named president and chief executive officer of the Automotive Service Association, succeeding Allen C. Richey, who retired.

Merwin was executive vice president of the association. He has more than 35 years in the automotive industry. He was president and chief executive officer of the Automotive Service Councils from 1973 until 1986, when that group consolidated with the Independent Automotive Service Association to form the Automotive Service Association.

Arvin buys Spanish firm

COLUMBUS, Ind. — Arvin Industries has reached an agreement to purchase 75 percent of A.P. Amortiguadores of Pamplona, Spain, a supplier of shock absorbers to European car firms.

Arvin will purchase the shares from T.I. Group of Great Britain for about $41 million. The Spanish firm anticipates sales of $100 million in 1989.

The other 25 percent of A.P. Amortiguadores is owned by Kayaba Industry Co. of Tokyo, a manufacturer of struts and shocks. Kayaba will continue to provide shock absorber technology to the Spanish firm under a previous technical assistance agreement.

COVER STORY

Computer caution

Many vendors are diversifying in case auto sales slide

Companies that sell computer hardware and software to automobile dealers are generally optimistic about the market in the near future. In fact, nearly all of the vendors that revealed sales figures in an *Automotive News* survey are predicting growth in 1989 and 1990 *(see table at right)*.

Topping the list is ADP Dealer Services, reporting 1988 sales of $1.549 billion (including non-automotive business).

ADP is bullish about 1989 and 1990, predicting sales of $1.678 billion and $1.780 billion, respectively.

The company boasts of sales growth every year since it was formed in 1972. "We have a strong and stable workforce and a strong commitment to research and development," a spokesperson says. "We're developing long term."

Second from the top of the list, The Reynolds and Reynolds Co. reports sales of more than $600 million in 1988. The firm expects sales to fall to $585 million in 1989, making it the only survey respondent to forecast a drop in sales. Half of the company's business is from auto dealers.

Other smaller computer vendors express cautious optimism about their automotive business in the coming year.

With some automotive analysts predicting a tightening new-car market, it's a truism in the industry that computer companies must help car dealers become more efficient if they want to experience sales growth in coming years. As they witness the closing of several new-car dealerships, computer firms are improving their products and seeking new growth markets.

Says Kevin Distelhorst, vice president of marketing at MCS One Touch, "Some dealers are having a tough time. We serve 1,000 GM dealers, and we are losing five to seven a month." He adds, however, that business overall is good.

MCS One Touch, which reports 1988 sales of $4.1 million, estimates sales of $4.9 million this year and $6 million in 1990.

Combined Systems Technology Inc. foresees its auto dealer business growing from 30 percent of sales in 1988 to 40 percent of sales in 1990. It reports sales of $5 million in 1988 and forecasts $7 million this year and $9 million in 1990.

Micro Masters has just begun selling to auto dealers. It plans 10 percent of sales to auto dealers in 1989 and an increase to 70 percent of sales in 1990. The firm expects sales of $189,000 this year and $425,000 next year.

Impact Systems Inc. says it has maintained its automotive business through its service efforts. Richard Simoni, vice president of marketing, says computer sales are not booming but they are not bad, either. He describes the auto market as "sophisticated."

Impact Systems is seeking new business in order to stay ahead. Simoni explains: "We are trying to enter used-car dealers and dealership used-car departments. Other growth areas we have looked at are service departments, customer follow-up and customer satisfaction indexes as possibilities."

IC Engineering is forecasting increased sales, but not to auto dealers. The firm reports 95 percent of sales to dealers in 1988, and expects 90 percent this year and 80 percent next year.

According to an IC Engineering representative, "The market has gone down for autos. Our existing customers are ordering less or they postpone ordering software and services until absolutely necessary."

IC expects its non-automotive business to grow. It predicts sales increases to $350,000 in 1989 and $400,000 in 1990. The company reports actual sales of $300,000 for 1988. ■

Computer vendors are generally optimistic about sales

	1988 Actual	1989 Estimate	1990 Forecast
ADP Dealer Services*	$1,549,000,000	$1,678,000,000	$1,780,000,000
Reynolds and Reynolds Co.*	600,111,000	585,000,000	N.A.
Western Diversified*	101,000,000	N.A.	N.A.
Convergent Dealership Systems*	40,000,000	50,000,000	65,000,000
Cars (Dyatron Corp.)*	40,000,000	N.A.	N.A.
Responsive Terminal Systems*	5,500,000	6,000,000	N.A.
Advanced Computer Systems	5,000,000	7,000,000	10,000,000
Combined Systems Tech. Inc.*	5,000,000	7,000,000	9,000,000
MCS One Touch*	4,100,000	4,900,000	6,000,000
MNI (Mike Nicholes Inc.)*	2,100,000	3,000,000	3,700,000
Megasys Inc.*	1,800,000	6,100,000	15,000,000
OSI Software*	1,500,000	1,800,000	2,000,000
Automotive Computer Technology	1,500,000	2,180,000	3,000,000
Key Systems*	1,200,000	2,100,000	3,700,000
Rapid Systems Inc.	955,000	1,100,000	1,400,000
Programmatics*	750,000	1,000,000	1,500,000
Dealer Image Co.	400,000	1,770,000	4,500,000
PC Carbook*	380,000	1,000,000	2,000,000
Dalcomp Inc.*	350,000	350,000	N.A.
IC Engineering*	300,000	350,000	400,000
Impact Systems Inc.*	200,000	350,000	500,000
O.R. Smith & Assoc.	100,000	100,000	100,000
First National Warranty Corp.*	90,000	269,000	580,000
Micro Masters*	87,000	189,000	425,000
Sales Force Co.*	15,600	32,000	124,000

NOTES: Numbers were reported by companies.
N.A. — Not Available
* — Sales figures and projections include non-automotive business.

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COMING NOV. 20: AUTOMOTIVE NEWS TALK FROM THE TOP EXTRA

DIRECTORY

Following is an alphabetical list of computer hardware and software vendors who responded to an *Automotive News* questionnaire on computer systems in automobile dealerships. Included are company addresses, telephone numbers, personnel, field locations, product descriptions, dealership functions served and annual dollar sales, as provided by the companies.

— Compiled by Colleen Belli

ADP DEALER SERVICES

ADP Dealer Services, 1950 Hassell Rd., Hoffman Estates, IL 60195. Phone: (312) 397-1700.

Personnel: Glenn W. Marschel, president; S. Michael Martone, senior vice president-sales; Bert Winemiller, senior vice president-product development; William S. Tulko, senior vice president-finance and administration; Dante Terzo, senior vice president-general manager.

Field Locations: 10151 S.E. Sunnyside Rd., Clackamas, OR 97015, (503) 654-6300; 6190 Powers Ferry Rd., Suite 250, Atlanta, GA 30339, (404) 955-6080; 300 Galleria Officentre, Suite 210, Southfield, MI 48034, (313) 353-9710; 400 Broadacres Dr., Bloomfield, NJ 07003, (201) 365-7500; 2735 Stemmons Freeway, Dallas, TX 75207, (214) 630-3041; 8550 Marshall Dr., Suite 201, Lenexa, KS 66214, (913) 492-4500; 18 Centerpointe Dr., La Palma, CA 90623, (714) 228-0222; 2010 Crow Canyon Place, San Ramon, CA 94583, (415) 866-1100; 8100 Cedar Ave. S., Bloomington, MN 55420, (612) 854-2080; 7390 Empire Dr., Florence, KY 41042, (606) 371-5005; 4 Kern Rd., Don Mills, Ontario, Canada M3B 1T1, (416) 443-8620; 4946 Canada Way, Suite 125, Burnaby, British Columbia, Canada V5G 3L4, (604) 736-5931.

Products: Complete dealership on-site computing systems featuring integrated single entry ADP Elite software for business office: accounting, accounts payable, payroll. Sales Dept.: showroom control, vehicle management, F&I with credit check, lease and rental, sales management. Service Dept.: service merchandising, dispatching, repair order invoicing, electronic repair order. Parts Dept.: automated parts catalog, parts inventory, parts invoicing, national parts locator. Manufacturer automotive systems: manufacturer communications, specifications, polling development, financial modeling, telecommunications networking.

Dealer Areas Served: Business Office, Parts Dept., F&I, Manufacturer Interface/Communication, Customer Relations/Follow-up; Sales Dept., Used Car Dept., Service Dept., Service & Warranty Contracts, Vehicle Renting/Leasing.

Annual Total Dollar Sales: 1988 actual, $1.549 billion; 1989 estimate, $1.678 billion; 1990 forecast, $1.78 billion.

ADVANCED COMPUTER SYSTEMS

Advanced Computer Systems, 310 East 4500 South, Suite 550, Salt Lake City, UT 84107. Phone: (801) 268-9231.

Personnel: Carl Holland, president; Richard Holland, vice president-field operations; Lance Stoker, vice president-marketing.

Products: Fully integrated auto dealer management system covering all dealership departments. An on-line user guide coaches users through system interaction.

Dealer Areas Served: Business Office, Parts Dept., F&I, Manufacturer Interface/Communication, Customer Relations/Follow-up, Sales Dept., Used Car Dept., Service Dept., Service & Warranty Contracts, Vehicle Renting/Leasing.

Annual Total Dollar Sales: 1988 actual, $5 million; 1989 estimate, $7 million; 1990 forecast, $10 million (100 percent auto dealerships).

ARMOR SYSTEMS INC.

Armor Systems Inc., 324 N. Orlando Ave., Maitland, FL 32751. Phone: (407) 629-0753.

Personnel: Nick S. Barth, chairman; Richard O. Bourgie, president.

Products: Excalibur Premier business and accounting software applicable to single-user, multi-user or network systems. Offers individually sold interactive applications: accounts receivable, accounts payable, inventory control, point of sale, quick sale, payroll, job cost, billing, purchase orders, order entry, customer information/data base management and bank reconciliation. Report generator provides customized management reporting capabilities.

Dealer Areas Served: Business Office, Parts Dept., Service & Warranty Contracts.

AUTOMOTIVE COMPUTER TECHNOLOGY

Automotive Computer Technology, 7125 W. Jefferson Ave., Denver, CO 80235. Phone: (800) 367-8806.

Personnel: Ron Boyer, general manager; Tom Swierczek, sales manager.

Products: F&I systems that compare up to 10 payments for maximum gross profit. A customer tracking package includes multiway searches for customers plus a word processor and letter writer. Applicable to single or multi-user systems. On-site service provided. IBM authorized.

Dealer Areas Served: Business Office, F&I, Customer Relations/Follow-up, Sales Dept., Used Car Dept., Service & Warranty Contracts, Vehicle Renting/Leasing.

Annual Total Dollar Sales: 1988 actual, $1.5 million; 1989 estimate, $2.18 million; 1990 forecast, $3.0 million (100 percent auto dealerships).

AUTO TELL SERVICES

Auto Tell Services Inc., 600

Continued on page E4

FEATURE

Dealership of the future

Satellite technology links dealers with the factory

Seeking to grab a share of the lucrative luxury-car market, Nissan Motor Corp. in U.S.A. is rolling out its Infiniti division. To set the Infiniti Q45 and M30 apart from other luxury cars, as well as other Nissan models, Nissan is positioning them as providing the best luxury, performance and customer satisfaction.

This strategic differentiation extends to everything Nissan is doing with Infiniti — from a campaign that breaks the mold of typical car ads, to a network of dealerships devoted exclusively to selling the Infiniti brand.

It is these car dealerships that form the heart of Nissan's strategy to obtain market leadership through technological superiority and customer satisfaction. To ensure consistent service, all dealers will be trained and certified at Infiniti's National Training Center in Scottsdale, Ariz. And to ensure that these dealers have the fastest and most efficient access to service, customer and other information, Nissan is linking dealerships with an interactive satellite network supplied by Scientific-Atlanta, based in Atlanta, Ga.

Says Mike Hadfield, network data processing specialist for Nissan, "We have a prestige car. We've taken the cream of the dealerships, and we want to provide a prestigious network. We want the whole experience at the dealership to be not only the selling of a luxury car, but having a comparable network there to support it."

By installing a VSAT (Very Small Aperture Terminal) Satellite network, Nissan is following in the footsteps of Toyota Motor Sales U.S.A. and Chrysler Motors Corp., which began linking their dealerships via VSAT in 1988.

In fact, almost 60 percent of all VSAT networks are in the auto industry, as measured by percentage of end-user sites *(see figure 1)*. When the networks are completely installed, Chrysler will have about 5,500 sites on-line, followed by Toyota with 800 sites and Nissan with about 200. Other automakers, including American Honda Motor Co. and General Motors, are said to be looking closely at a VSAT network for their dealerships.

What exactly is a VSAT network? What specific advantages can it offer automakers? How does it compare to other data transmission techniques? And what role will VSAT play in dealerships in the future?

Essentially, VSAT is a method of distributing data, video and voice to widely dispersed sites via satellite link-ups. The technology allows tens, hundreds or even thousands of remote locations to access centralized computing facilities for either batch or interactive applications.

VSAT networks are considered a bypass technology, meaning they are an alternative to traditional methods of transferring voice and data over leased or public telephone lines. VSAT networks provide a strong economic advantage over traditional methods, especially as the number of sites in the network increases. The cost of VSAT transmission remains the same, no matter whether data is transferred between dealerships across town or across the nation.

The heart of a typical VSAT network is a master station, which can be owned by either the customer or the satellite vendor *(see figure 2)*. The master station is usually located at a central site, such as corporate headquarters or the data processing center. It uses a satellite dish linked to sophisticated switching and processing equipment. This equipment transfers data to and from a customer's host computer.

The master station transmits information via satellite to and from any number of remote stations. The remote stations are located at the dealership. Each typically consists of a small antenna and an indoor unit about the size of a video cassette recorder. The indoor unit has multiple ports and supports most standard communication protocols. Thus a remote station can provide end-to-end communications for all type of devices in a network.

VSAT networks provide numerous advantages over traditional terrestrial networks, including a high degree of reliability, flexible network configuration, sophisticated network management and a greater capacity for transferring information. And since there are no land-based telephone circuits that can be damaged, VSAT networks are also used for fail-safe disaster recovery; for example, at stations that were rocked by the recent earthquake near San Francisco.

VSAT networks are also better able to handle a fluctuating number of dealership locations. A VSAT site can be brought on-line in a day, compared to the months often needed to have terrestrial service installed.

Additionally, VSAT networks are generally less expensive to install and maintain than other long-distance networks. In fact, cost savings was the primary — and sometimes the only — criteria for the early adopters of VSAT technology. But as the automotive and other industries have become more sophisticated, corporate users are turning to VSAT networks to reduce network management headaches, improve the reliability of data communications and add the future capability to broadcast video.

One reason for the rapid expansion of VSAT networks has been its evolution through three generations of technology. The first generation, occurring around 1980, was characterized by the refinement of contention schemes, or the ability to handle simultaneous network demands for access.

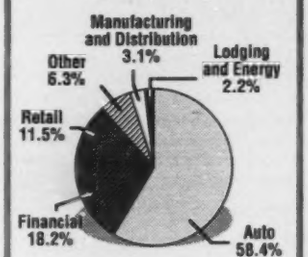
In the mid-1980s, VSAT technology was applied to data communications as multiport, multiprotocol systems were developed. The third generation, exemplified by Scientific-Atlanta's SkylinX.25 VSAT offering, features open standardized architectures, improved access and flexible network management schemes.

But the auto industry is not adopting VSAT technology merely because of its technical advantages over other transmission techniques. The technology is being used as a weapon for competitive advantage.

According to Chrysler Corp. chairman Lee Iacocca, "The game in the 1990s will be won at the dealership level. Enhanced dealer service will get us strategically prepared for the game." VSAT networks are one way to dramatically enhance dealer capabilities to access needed information.

VSAT awards

Figure 1. Distribution by percentage of end user sites.



Source: Scientific Atlanta

AUTOMOTIVE NEWS / KEN ENGLETON

By employing a central minicomputer, terminals and personal computers, dealers can use a VSAT network cost effectively in four locations in the dealership: sales/showroom; business office; service bay; and parts desk.

Figure 3 shows how the "auto dealership of the future" will employ VSATs. In the sales showroom, VSATs can be used for video training, video product presentations, electronic mail and on-line order entry. The business office can take advantage of credit card/check authorizations, third-party accounting timeshare, or access to a financing company.

The service bay can download diagnostic software and service manuals, review on-line warranties, or check service bulletins via electronic mail. The parts department can call up an electronic parts catalog, review schematics, correspond inexpensively with other dealers, or order parts.

Such capabilities cannot be effectively provided by traditional dial-up or leased line networks. Dial-up networks sometimes have problems with availability or reliability, and their response time is too slow for effective interactive communications. The bandwidth, or transmission space, is also too narrow to accommodate multiple applications.

Leased lines involve the continuing expense of complex network management. They are also difficult to expand or re-configure and require the integration of equipment from numerous vendors.

"With leased lines, you have to engineer the network and decide where this line is going to go and how many drops you should put on this leased line," Nissan's Hadfield says. "But you can put a VSAT dish literally anywhere in the U.S., and it's sort of a self-adjusting topology."

However, VSAT networks can work effectively with either a leased-line or dial-up network in a configuration called a hybrid network. This is because a network such as Scientific-Atlanta's SkylinX.25 is based on the industry-standard X.25 packet switching protocol.

What is the cost of a VSAT network for auto companies?

According to Hadfield, VSAT networks are about 20 percent less expensive than comparable terrestrial networks. In addition, much of the operating costs of the network can be recouped by monthly charges to the dealerships.

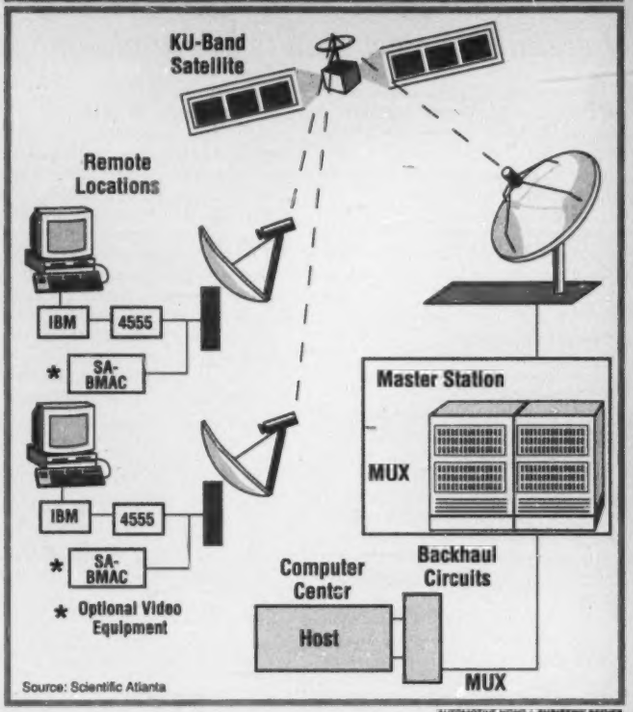
Upfront costs depend on whether a "shared" or "private" hub strategy is pursued. With a shared hub, a VSAT vendor essentially rents broadcast capabilities from a master station to several customers. A private hub, which costs up to $1.2 million to install, is owned and operated by the customer.

Both approaches have their advantages and disadvantages, but Nissan for now is going with a shared hub. Dealerships will exchange data with Nissan's main computer center via Scientific-Atlanta's shared hub in Los Angeles. Network management will be handled from Los Angeles, but Nissan will be able to monitor the network from its computer center via a high-speed modem link. Nissan may convert to a private hub in the future if that option becomes more economical.

The "fully loaded" costs to the dealer can range from $350-$600 per month per remote site, depending on the range of capabilities that are used. Often this charge can be less than the cost of dial-up or leased long-distance lines for traditional data communications.

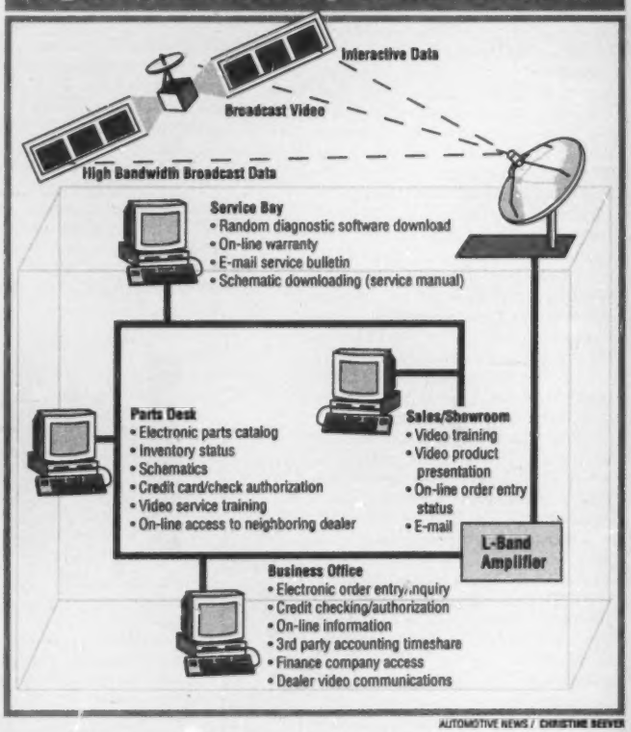
With all the advantages of VSAT networks, it's no wonder that Chrysler, Nissan and other major automakers have made a major strategic commitment to VSAT. As a result, satellite dishes are likely to become as much a part of every auto dealership as banners announcing the latest models. ■

Figure 2: VSAT Network components



AUTOMOTIVE NEWS / CHRISTINE BEEVER

Figure 3: Dealership of the future



AUTOMOTIVE NEWS / CHRISTINE BEEVER

AUCTION DATES

Chrysler Motors

Nov. 7 — American Auto Auction, Walpole, Mass.; Arena Auto Auction, Chicago; Florida Auto Auction of Orlando, Ocoee, Fla.; Portland Auto Auction, Portland, Ore.; Riverside Auto Auction, Riverside, Calif.; Greensboro Auto Auction, Greensboro, N.C.; and San Antonio Auto Auction, San Antonio, Texas

Nov. 8 — A.D.E of Birmingham, Moody, Ala., and Butler Auto Auction, Gibsonia, Pa.

Nov. 9 — Northway Exchange, Clifton Park, N.Y.; Aptco Auto Auction, Taylor, Mich.; Indianapolis Auto Auction, Indianapolis; Omaha Auto Auction, Omaha, Neb.; Southwest Auto Auction, Chandler, Ariz.; and Ark-La-Tex Auto Auction, Shreveport, La.

Nov. 10 — Manheim Auto Auction, Manheim, Pa.

Nov. 14 — Clanton's Auto Auction, Darlington, S.C.; Southern Auto Auction, East Windsor, Conn.; Hatfield Auto Auction, Hatfield, Pa.; Nashville Auto Auction, Nashville, Tenn.; South Seattle Auto Auction, Kent, Wash.; Golden Gate Auto Auction, Fremont, Calif.; and Dallas Auto Auction, Grand Prairie, Texas

Nov. 15 — Columbus Fair Auto Auction, Obetz, Ohio; Denver Auto Auction, Aurora, Colo.; and Minneapolis Auto Auction, Plymouth, Minn.

Nov. 16 — Fredericksburg Auto Auction, Fredericksburg, Va.; Metro Auto Auction of Kansas City, Lee's Summit, Mo.; Utah Auto Auction, West Bountiful, Utah; Amarillo Auto Auction, Amarillo, Texas; and Atlanta Auto Auction, Red Oak, Ga.

Nov. 17 — St. Louis Auto Auction, Bridgeton, Mo.; Tri-State Auto Auction, Cicero, N.Y.; West Palm Beach Auto Auction, West Palm Beach, Fla.; and Manheim Auto Auction, Manheim, Pa.

Nov. 21 — Omaha Auto Auction, Omaha, Neb.; Ark-La-Tex Auto Auction, Shreveport, La.; American Auto Auction, Walpole, Mass.; Arena Auto Auction, Chicago; Florida Auto Auction of Orlando, Ocoee, Fla.; Portland Auto Auction, Portland, Ore.; Riverside Auto Auction, Riverside, Calif.; Greensboro Auto Auction, Greensboro, N.C.; and San Antonio Auto Auction, San Antonio, Texas

Nov. 22 — Southwest Auto Auction, Chandler, Ariz.; Northway Exchange, Clifton Park, N.Y.; A.D.E. of Birmingham, Moody, Ala.; and Butler Auto Auction, Gibsonia, Pa.

Nov. 28 — Clanton's Auto Auction, Darlington, S.C.; Southern Auto Auction, East Windsor, Conn.; Hatfield Auto Auction, Hatfield, Pa.; Nashville Auto Auction, Nashville, Tenn.; South Seattle Auto Auction, Kent, Wash.; Golden Gate Auto Auction, Fremont, Calif.; and Dallas Auto Auction, Grand Prairie, Texas

Ford Motor Co.

Nov. 7 — Ohio Auto Auction, Grove City, Ohio; Harrisonburg Auto Auction, Harrisonburg, Va.; Bay Cities Auto Auction, Hayward, Calif.; and South Seattle Auto Auction, Kent, Wash.

Nov. 8 — Aptco Auto Auction, Taylor, Mich.; Fort Worth Auto Auction, Fort Worth, Texas; Indianapolis Auto Auction, Indianapolis; Metro Auto Auction of Kansas City, Lee's Summit, Mo.; and Greater Tampa Bay Auto Auction, Tampa, Fla.

Nov. 9 — Auto Auction of Billings, Billings, Mont.; Denver Auto Auction, Aurora, Colo.; Minneapolis Auto Auction, Plymouth, Minn.; Nashville Auto Auction, Nashville, Tenn.; Skyline Auto Exchange, Fairfield, N.J.; and 166 Auto Auction, Springfield, Mo.

Nov. 14 — Greater Chicago Auto Auction, Chicago, and Newburgh Auto Auction, Newburgh, N.Y.

Nov. 15 — Northway Auto Auction, Clifton Park, N.Y.; Clanton's Auto Auction, Darlington, S.C.; Mississippi Auto Auction, Hattiesburg, Miss.; Texas Hobby Auto Auction, Houston, Texas; Southern California Auto Auction, Fontana, Calif.; Omaha Auto Auction, Omaha, Neb.; and Salt Lake Auto Auction, Salt Lake City

Nov. 16 — Manheim Auto Auction, Manheim, Pa.; Southwest Auto Auction, Chandler, Ariz.; Brasher's Sacramento Auto Auction, Rio Linda, Calif.; and St. Louis Auto Auction, Bridgeton, Mo.

Nov. 21 — A.D.E. of Birmingham, Moody, Ala.; Ohio Auto Auction, Grove City, Ohio; Bay Cities Auto Auction, Hayward, Calif.; and South Seattle Auto Auction, Kent, Wash.

Nov. 22 — Concord Auto Auction, Acton, Mass.: Denver Auto Auction, Aurora, Colo.; Aptco Auto Auction, Taylor, Mich.; Fort Worth Auto Auction, Fort Worth, Texas; Indianapolis Auto Auction, Indianapolis; Metro Auto Auction of Kansas City, Lee's Summit, Mo.; and Greater Tampa Bay Auto Auction, Tampa, Fla.

Nov. 28 — Greater Chicago Auto Auction, Chicago, and Newburgh Auto Auction, Newburgh, N.Y.

Nov. 29 — Atlanta Auto Auction, Red Oak, Ga.; Baltimore-Washington Auto Exchange, Baltimore; Texas Hobby Auto Auction, Houston; and Southern California Auto Auction, Fontana, Calif.

General Motors

Nov. 7 — Southern Auto Auction, East Windsor, Conn.; Dallas Auto Auction, Grand Prairie, Texas; and Manheim Auto Auction, Manheim, Pa.

Nov. 8 — Atlanta Auto Auction, Atlanta; Clanton's Auto Auction, Darlington, S.C.; Southern California Auto Auction, Fontana, Calif.; and Omaha Auto Auction, Omaha, Neb.

Nov. 9 — Amarillo Auto Auction, Amarillo, Texas; Mid Ark Auto Auction, North Little Rock, Ark.; Arena Auto Auction, Chicago; Columbus Auto Auction, Columbus, Ohio; and St. Louis Auto Auction, Bridgeton, Mo.

Nov. 14 — A.D.E. of Birmingham, Moody, Ala.; Harrisonburg Auto Auction, Harrisonburg, Va.; and Florida Auto Auction of Orlando, Ocoee, Fla.

Nov. 15 — Indianapolis Auto Auction, Indianapolis; Metro Auto Auction of Kansas City, Lee's Summit, Mo.; Minneapolis Northstar Auto Auction, Shakopee, Minn.; and Golden Gate Auto Auction, Fremont, Calif.

Nov. 16 — Southwest Auto Auction, Chandler, Ariz.; Apcto Auto Auction, Taylor, Mich.; Butler Auto Auction, Gibsonia, Pa.; Big H Auto Auction, Houston; Nashville Auto Auction, Nashville, Tenn.; and Utah Auto Auction, West Bountiful, Utah

Nov. 21 — Southern Auto Auction, East Windsor, Conn.; Dallas Auto Auction, Grand Prairie, Texas; and Fresno Auto Dealers Auction, Fresno, Calif.

Nov. 22 — Atlanta Auto Auction, Atlanta; Puget Auto Auction, Auburn, Wash.; Baltimore-Washington Auto Exchange, Baltimore; Clanton's Auto Auction, Darlington, S.C.; Mississippi Auto Auction, Hattiesburg, Miss.; and Omaha Auto Auction, Omaha, Neb.

Nov. 28 — A.D.E. of Birmingham, Moody, Ala.; National Auto Dealers Exchange, Bordentown, N.J.; and Florida Auto Auction of Orlando, Ocoee, Fla.

Nov. 29 — Indianapolis Auto Auction, Indianapolis; Metro Auto Auction of Kansas City, Lee's Summit, Mo.; Minneapolis Northstar Auto Auction, Shakopee, Minn.; and Statesville Auto Auction, Statesville, N.C.

Nov. 30 — Denver Auto Auction, Aurora, Colo.; Aptco Auto Auction, Taylor, Mich.; Butler Auto Auction, Gibsonia, Pa.; and Nashville Auto Auction, Nashville, Tenn.

Toyota

Nov. 1 — Aptco Auto Auction, Taylor, Mich., and Greater Tampa Bay Auto Auction, Tampa, Fla.

Nov. 7 — Southern California Auto Auction, Fontana, Calif.

Nov. 8 — Baltimore-Washington Auto Exchange, Baltimore, Md.

Nov. 9 — Clanton's Auto Auction, Darlington, S.C., and St. Louis Auto Auction, Bridgeton, Mo.

Nov. 14 — Bay Cities Auto Auction, Hayward, Calif., and Southern Auto Auction, Windsor, Conn.

Nov. 16 — Denver Auto Auction, Aurora, Colo.

Nov. 28 — South Seattle Auto Auction, Kent, Wash., and Greater Chicago Auto Auction, Chicago

Model-year breakdown

Used car sales, auction averages

Year	August	September	October
1989	$10,766	$10,309	$9,911
1988	7,728	7,491	7,241
1987	6,156	5,966	5,796
1986	5,248	5,087	4,902
1985	4,319	4,147	4,061
1984	3,476	3,234	3,134
1983	2,833	2,464	2,428
1982	2,030	1,929	1,899
Overall	$6,719	$6,525	$6,469

Source: NADA Official Used Car Guide

AUCTION DIRECTORY

AUCTION SERVICE

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Nationwide Service
1-800-445-5656

NEW YORK

Northway Exchange, Inc., Rte. 146, Clifton Park, N.Y. Auction, 518-371-7500; Recon, 371-7800. Northeast's Finest - Every Thursday, 11:30 A.M. sharp.

NORTH CAROLINA

Aycock Auto Auction, I95 & S. Bagley Rd., Kenly, NC 27542. Sale every Monday 11 AM. We service fleet & lease. Reconditioned facility. Kenneth Aycock, 919-284-4052.

NORTH CAROLINA

Statesville Auto Auction, I77 & Hwy. 21, Exit 54, Statesville, N.C., (704) 876-1111 — Every Tuesday, 10:00 A.M. Body Shop-Recon & Transportation available.

OHIO

Wednesday Auto Auction. Exit 49 on I-270. Columbus, Ohio. Every Wednesday. Call: Area 614-497-2000.

OHIO

The Frankenthal Group. Cincinnati/Louisville Auto Auctions, SJF Transport, Personal Service Always! Thurs., 11am Cinti, 513-874-9310 Tue 11am Lsvl 812-283-0734

OHIO

Tri-State Auto Auction, Exit 36 on I-75, Franklin, OH. Lease/Dealer sales every Tue., 11:30. Repo sale 1st & 3rd Sat. of ea. mo., 10:00. Recon/transpts. Call 513-746-4000.

OKLAHOMA

Dealers Auto Auction of Oklahoma City, Box 75757, Oklahoma City, OK 73147. Sale every Thurs. 10 A.M. GMAC, Ford Motor Credit, Chrys. Credit weekly. 405-947-2886.

OREGON

Portland Auto Auction. Fleet & lease accts. welcome, repos, etc. The West's best. Call: Rene', 503-286-3000. 3000 No. Hayden Island, Portland, Oregon 97217.

PENNSYLVANIA

Corry Auto Dealer Exchange, Route 6, P.O. Box 317, Corry, PA 16407. 814-664-7721. Every Thursday 12:30 sharp.

PENNSYLVANIA

GARDEN SPOT AUTO AUCTION
EPHRATA, PA.
SALE TUESDAY, 10:30 A.M.
FULL SERVICE AUCTION
Out of state fleet & lease accounts welcome
Contact: **J. Omar Landis, Jim Landis**
P.O. BOX 501, EPHRATA, PA. 17522
717-733-7917

PENNSYLVANIA

Todd Auto Auction, Old Route 309, P.O. Box 380, Telford, Pa. 18969. 215-721-1300 or 800-234-TODD. Next Sale — Nov. 16th.

Auction Ads Get RESULTS

PENNSYLVANIA

Hatfield Auto Auction
Route 309, Box 309
Hatfield, Pa.
FLEET & LEASE
From quick pickup to condition report to recon to sale. 21 years servicing the industry. Contact: Mort Gallub.
215-822-1936
Sale Every Tuesday, 11 A.M.

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Jaguar in 1980s — a story of ups and downs

By Richard Johnson
AUTOMOTIVE NEWS STAFF REPORTER

FRANKFURT, West Germany — The rise and fall of Jaguar during the 1980s — which culminated in last week's high drama — has been tantalizing every step of the way.

Much of the focus is now on whether Ford Motor Co. paid too much for a company operating in the red and building cars in antiquated facilities. But that overlooks the great success Jaguar enjoyed in the not-too-distant past and improved prospects next year as a result of a better dollar exchange rate.

Jaguar earned net profits of £232 million ($364 million) during the three years 1985-87 on production of about 128,000 units.

After nearly vanishing in the 1970s, Jaguar staged a remarkable comeback. The theme of the mid-1980s was, "If only the rest of British industry could be more like Jaguar."

When John Egan became chairman in 1980, British taxpayers were pouring money into Jaguar. Losses totaled £46 million ($72 million) in 1980.

The first aim was to improve productivity. Jaguar used 8,286 employees to build fewer than 14,000 cars in 1981. Last year, Jaguar produced 51,939 cars with 12,611.

Egan and his management team also had to improve quality. Electrical problems had become synonymous with Jaguars in the 1970s and a running joke in America. The measures took hold, and Jaguar was deemed ready to be cut loose from its state-owned parent, BL — as Rover Group was then known. It quickly became the jewel in Prime Minister Margaret Thatcher's privatization program after shares were sold in 1984.

Jaguar fattened up largely on a booming U.S. luxury market that was made all the more lucrative by the sky-high dollar. But since then, Jaguar has been damaged by the dollar's plunge.

Problems began after the launch of the XJ6, which represents about 80 percent of volume and was the company's first new car in 11 years.

The XJ6 sold well, but suppliers had trouble meeting demand and training employees.

The drama has been magnified by the scheduled December 1990 expiration of a provision in Jaguar's articles of association that kept acquirers from buying more than a 15 percent stake.

By 1987, Jaguar profits were in decline as unfavorable exchange rates countered a growth in worldwide sales. Demand also softened in the European prestige segment.

Jaguar's U.S. sales rose from 3,029 in 1980 to 24,464 in 1986, but dipped to 20,727 in 1988. Though Jaguar's American volume declined less than that of some other makess, marketing costs increased because of discounts and incentives.

Profits collapsed this year. In the first half of 1989 Jaguar reported an operating loss and made a pretax profit of only £1.4 million ($2.2 million).

But there are some good signs on the horizon. For one, the company's U.S. dollar exchange rate is hedged at $1.55 to the pound next year, compared with a less favorable $1.70 in 1989. The stronger dollar rate improves earnings potential.

INCENTIVE WATCH

CUSTOMER INCENTIVES

	Rebates	Finance Rates (Pct.) — Months — 24	36	48	60	Expiration Date
Chrysler Motors (1988-89 models)						
Chrysler	$500-$1,000	6.9	7.9	9.9	9.9	None
Dodge cars	$500-$1,000	6.9	7.9	9.9	9.9	None
Dodge trucks	$500-$2,500	6.9	7.9	9.9	9.9	None
Eagle	$750-$1,200	6.9	7.9	9.9	9.9	None
Jeep	$500-$1,000	6.9	7.9	9.9	9.9	None
Plymouth	$500-$750	6.9	7.9	9.9	9.9	None
Chrysler Motors (1990 models)						
Chrysler	**$500-$1,000**	**6.9**	**7.9**	**9.9**	**9.9**	**None**
Dodge cars	**$300-$1,000**	**6.9**	**7.9**	**9.9**	**9.9**	**None**
Dodge trucks	**$500-$2,000**	**6.9**	**7.9**	**9.9**	**9.9**	**None**
Eagle	**$500-$1,000**	**6.9**	**7.9**	**9.9**	**9.9**	**None**
Jeep	**$500-$1,000**	**6.9**	**7.9**	**9.9**	**9.9**	**None**
Plymouth	**$300-$750**	**6.9**	**7.9**	**9.9**	**9.9**	**None**
Ford Motor Co. (1989 models)						
Ford cars	$500-$1,000	6.9	8.9	9.9	10.9	None
Ford trucks*	$500-$1,250	6.9	8.9	9.9	10.9	None
Lincoln	$500-$1,500					None
Mercury	$600-$1,500	6.9	8.9	9.9	10.9	None
Merkur	$3,000-$4,000					None
*-Ford truck finance incentive applies only to Ranger, Bronco and Bronco II						
Ford Motor Co. (1990 models)						
Ford cars	**$500-$800**	**6.9**	**8.9**	**9.9**	**10.9**	**None**
Ranger, Bronco, Bronco II	**$755-$1,250**	**6.9**	**8.9**	**9.9**	**10.9**	**None**
Mercury Topaz, Cougar, Sable	**$600**	**6.9**	**8.9**	**9.9**	**10.9**	**None**
General Motors (1989 models)						
Chevrolet cars	$400-$1,000	6.9	8.9	9.9	10.9	None
Chevrolet trucks	$500-$1,250	6.9	8.9	9.9	10.9	None
GMC	$500-$1,250	6.9	8.9	9.9	10.9	None
Oldsmobile	$200-$2,500*	6.9	8.9	9.9	10.9	None
Pontiac	$600-$1,000	6.9	8.9	9.9	10.9	None
*-Based on option package selected						
General Motors (1990 models)						
Buick	**$200-$1,000***	**6.9**	**8.9**	**9.9**	**10.9**	**None**
Chevrolet cars	**$750-$800 on Corsica, Beretta, Lumina, Prizm****	**6.9**	**8.9**	**9.9**	**10.9**	**None**
Chevrolet trucks	**$1,000-$1,250 on S-10 pickup, Blazer**	**6.9**	**8.9**	**9.9**	**10.9**	**None**
GMC	**$1,000-$1,250 on S-15 pickup, Blazer; $750 on full-sized Jimmy and Suburban**	**6.9**	**8.9**	**9.9**	**10.9**	**Jan. 4**
Oldsmobile	**$200-$1,000***	**6.9**	**8.9**	**9.9**	**10.9**	**None**
Pontiac	**$600-$1,000**	**6.9**	**8.9**	**9.9**	**10.9**	**None**
*-Based on option package selected **-$1,400 on Prizm for import owners						
Audi 80 and 100 (1990 models)			5.9	6.9	7.9	Nov. 30
Hyundai Excel (1988-89 models)	$500-$1,000					Jan. 3
Nissan Stanza (1989)	$1,500-$2,000			7.9	9.9	Dec. 4
Sterling (1989)	$3,500-$5,000					Nov. 2
Subaru Justy ('89)	$500-$1,000*					Jan. 3
*-Rebates go to the customer in some regions and to the dealer in other regions.						
Volkswagen (1989 models)	$500-$3,000	2.9	6.9	7.9	9.9	Oct. 31

GM offers dealer rebates of $200-$500 on '89s, '90s

By Arlena Sawyers
AUTOMOTIVE NEWS STAFF REPORTER

Two of the Big 3 adjusted their incentive programs last week, while several importers implemented new programs, extended current programs or allowed their programs to expire.

Ford Motor Co. customers who purchase 1990 Broncos may choose either a $750 cash rebate or financing ranging from 6.9 percent for 24 months to 10.9 percent for 60 months. The 1989 Bronco, already available with a $750 rebate, now has the same special interest rates for the 1990 model. The program runs indefinitely.

Chevrolet, Pontiac, Oldsmobile, Buick and GMC Truck announced dealer incentive programs designed to allow dealers to promote sales in their own markets.

Dealers earn $200 to $500 per eligible retail sale for performance against quota. A dealer who sells 33.5 percent to 75 percent of his objective earns $200 per vehicle; 75.1 percent to 100 percent earns $300 per vehicle; and sales over 100 percent earn $500 each.

All 1989 and 1990 models are included in the program except for Chevrolet S-10 pickups, S-10 Blazers and W-4 cabover trucks and GMC S-15 Jimmys and S-15 pickups.

Toyota Motor Sales U.S.A. announced new dealer incentives: 1989 Camry, Corolla, $500 to $800, based on quota; 1990 Camry, Corolla, $100 to $400, based on quota; 1989 Tercel, $300; and 1989 Celica, $500.

The Camry and Corolla programs expire Jan. 3; Tercel and Celica, Dec. 4.

Hyundai Motor America is offering customer and dealer incentive programs that extend through Jan. 3. Customers who buy 1988 and 1989 Excel models will receive rebates of $500 to $1,000. Dealers earn $300 to $600, based on quotas, on 1988 and 1989 Excel. Also, salespersons earn random payments of between $50 to $1,000 on 1988 and 1989 Excels, and sales managers will receive cash amounting to 25 percent of their salespersons' bonuses.

Also Hyundai dealers are eligible for $1,000 to $1,500 on 1989 Sonatas depending on the number of vehicles sold.

Sterling Motor Cars' $3,500 to $5,000 customer cash rebate program on 1989 cars that was to have expired Nov. 2 has been extended until Dec. 31.

Audi announced rebates of $2,000 to $3,500 for dealers and cut-rate financing for customers.

INCENTIVE WATCH

DEALER INCENTIVES

	Rebate	Expiration Date
Ford Motor Co. (1989 models)		
Festiva, Escort	$200-$500, quota	Nov. 7
Taurus SHO	$1,000	Nov. 7
Ranger, Bronco II	$250	Nov. 7
Merkur	$1,000	Nov. 7*
*No expiration date on Scorpio		
Ford Motor Co. (1990 models)		
Festiva, Escort	**$200-$500, quota**	**Nov. 7**
Tempo	**$250**	**Nov. 7**
Taurus SHO	**$1,000**	**Nov. 7**
Ranger, Bronco II	**$200-$500, quota**	**Nov. 7**
Continental	**$1,000**	**Nov. 7**
General Motors (1990 models)		
Buick	**$1,000-$2,000 on Reatta, Riviera, Park Avenue Ultra**	**Nov. 30**
General Motors (1989-90 models)		
All Buick	**$200-$500, quota**	**Jan. 4**
Chevrolet Cars	**$200-$500, quota**	**Jan. 4**
Chevrolet Trucks*	**$200-$500, quota**	**Jan. 4**
GMC*	**$200-$500, quota**	**Jan. 4**
Oldsmobile	**$200-$500, quota**	**Jan. 4**
Pontiac	**$200-$500, quota**	**Jan. 4**
*Excluding S-10 pickup and Blazer and S-15 pickup and Jimmy		
Audi (1990 models)	**$2,000-$3,500**	**Nov. 30**
Hyundai (1989-90 models)	$300-$1,500	Jan. 3
Isuzu (1989 models)	$1,500, quota	Dec. 31
Nissan (1989 models)		
Axxess, trucks	$200-$2,000	Dec. 4
Peugeot	$1,000	Dec. 31
Subaru XT (1989 model)	$1,000-$3,000*	Jan. 3
*-Rebates go to the customer in some regions and to the dealer in other regions.		
Toyota Tercel, Celica (1989 models)	$300-$500	Dec. 4
Corolla, Camry (1989 models)	$500-$800, quota	Jan. 3
Corolla, Camry (1990 models)	**$100-$400, quota**	**Jan. 3**

PRODUCTION

Auto output still slow; 3 plants idle

By Kathy Boyer
AUTOMOTIVE NEWS STAFF REPORTER

With three car-assembly plants idle, U.S. auto production declined last week. Output has been trailing the year-ago week since late July due to high inventories and slow sales.

Automakers' targeted assembly of 144,506 cars fell 1.12 percent from the previous week and slid 8.17 percent from the 1988 week.

So far this year, 5,932,211 cars have been produced, 1.58 percent below last year's total at this point.

Last week's estimated production was split as follows: General Motors, 44.62 percent; Ford Motor Co., 26.34 percent; Chrysler Motors, 11.39 percent; Honda of America Manufacturing, 5.11 percent; Mazda Motor Manufacturing U.S.A. Corp., 3.10 percent; Toyota Motor Manufacturing, U.S.A., 2.83 percent; New United Motor Manufacturing Inc., 2.63 percent; Diamond-Star Motors, 2.53 percent; and Nissan Motor Manufacturing Corp. U.S.A., 1.45 percent.

Last week's scheduled truck output of 80,532 increased 6.87 percent over the prior week but was 8.33 percent below the year-ago week.

Year-to-date, 3,540,900 trucks have been assembled, 0.62 percent more than last year's production at this time.

GM's Wilmington, Del., plant and the Pontiac Grand Am line at its Lansing, Mich., facility closed today due to bloated inventories. They will be idle until Nov. 13.

GM's Fairfax, Kan., plant remains idle until Nov. 13 to adjust inventory. The Arlington, Texas, plant and the Detroit truck plant resumed output today after being closed due to slow sales.

Chrysler's St. Louis No. 1 plant remains closed until Nov. 20 because of poor sales of the Chrysler LeBaron J and Dodge Daytona models. The company's Grand Wagoneer line at the Toledo, Ohio, plant resumed output today.

Navistar International Corp. closed its Springfield, Ohio, plant last week to balance inventory. The plant is expected to resume operations today.

Car assembly up 12% in Canada

Scheduled Canadian car output of 26,728 units last week increased 12.82 percent over the previous week and 28.07 percent over the year-ago week.

So far this year, 831,862 cars have been built, 8.01 percent below last year's total at this point.

Truck production was targeted at 19,338 last week, 21.67 percent below the prior week and 8.14 percent lower than the year-ago week.

Chrysler's Brampton, Ontario, Jeep Wrangler plant remains idle until Nov. 13. When the plant reopens, daily output will be reduced from 340 per day to 300, leaving 180 workers on indefinite layoff.

Navistar International's plant in Chatham, Ontario, was shut down last week because of sluggish sales. The plant is expected to resume assembly today.

U.S. CAR	Week Ended Nov. 4, 1989	Week Ended Nov. 5, 1988	Week Ended Oct. 28, 1989	Oct. Est.	Jan. 1 to Nov. 4, 1989	Jan. 1 to Nov. 5, 1988
Horizon	1,100	1,361	1,134	4,905	28,471	69,150
Sundance	1,900	1,960	1,907	8,309	87,724	88,183
Reliant	0	1,910	0	0	0	78,001
Acclaim	2,600	636	3,025	12,578	108,697	1,082
Caravelle	0	0	0	0	0	9,265
Gran Fury	0	336	0	0	0	18,069
Total Plymouth	5,600	6,203	6,066	25,792	224,892	263,750
LeBaron K	0	0	0	0	0	7,912
LeBaron J	0	2,383	0	5,486	85,779	71,439
LeBaron GTS	0	72	0	0	2,946	8,134
N. Yorker C-Class	850	2,241	885	3,859	68,953	90,332
Fifth Avenue	1,000	794	796	4,981	21,583	28,151
Imperial	500	0	468	1,491	2,003	0
Total Chrysler	2,350	5,490	2,149	15,817	181,264	205,968
Omni	1,200	1,447	1,216	5,444	30,375	67,976
Daytona	0	1,568	0	3,696	66,925	66,476
Shadow	2,100	1,810	2,228	9,777	86,341	87,264
Aries	0	2,320	0	0	0	76,289
Dodge 600	0	0	0	0	0	8,549
Dynasty	2,400	2,753	2,671	10,912	112,409	93,528
Lancer	0	257	0	0	1,528	7,821
Spirit	2,800	590	2,505	11,792	95,177	825
Diplomat	0	428	0	0	0	16,583
Total Dodge	8,500	11,173	8,620	41,621	392,755	425,311
CHRYSLER MOTORS	16,450	22,866	16,835	83,230	798,911	895,029
Escort	10,000	11,056	9,861	42,267	301,050	351,726
Mustang	3,705	4,138	3,774	16,239	171,977	173,021
Tempo	2,388	3,490	3,245	13,653	127,249	158,046
Taurus	8,098	8,194	8,076	35,453	308,983	338,204
Thunderbird	2,623	1,334	2,233	5,265	122,728	94,512
Total Ford Div.	26,814	28,212	27,189	112,878	1,031,987	1,115,509
Topaz	713	1,505	1,161	5,063	58,216	60,793
Cougar	2,617	1,330	2,189	5,002	105,141	73,915
Sable	3,021	2,795	2,809	12,797	102,958	115,242
Total Mercury	6,351	5,630	6,159	22,862	266,315	249,950
Continental	1,471	1,546	1,703	6,809	55,317	44,561
Mark VII	485	776	569	2,249	17,918	23,369
Lincoln Town Car	2,937	2,318	3,411	13,601	105,715	106,968
Total Lincoln	4,893	4,640	5,683	22,659	178,950	174,898
Total L-M Division	11,244	10,270	11,842	45,522	445,265	424,848
FORD MOTOR CO.	38,058	38,482	39,031	158,399	1,477,252	1,540,357
Skyhawk	0	963	0	0	6,913	22,437
Skylark/Somerset	1,921	1,352	1,903	8,438	55,579	44,126
Century	2,380	4,325	2,350	8,740	109,325	118,342
Riviera	623	653	540	2,446	17,151	9,298
Electra	1,955	2,224	1,631	7,402	68,688	75,582
LeSabre (fwd)	3,570	2,340	3,749	15,623	131,956	116,189
LeSabre (rwd)	260	220	213	1,005	6,533	8,477
Reatta	209	207	207	911	5,426	8,512
Total Buick	10,918	12,284	10,593	44,565	401,571	402,963
Cimarron	0	0	0	0	0	3,693
Eldorado	679	758	669	3,100	25,531	30,464
Seville	638	587	634	2,581	19,183	19,789
Brougham (rwd)	0	916	1,600	6,424	47,212	29,952
Deville (fwd)	3,680	3,712	3,693	17,864	157,776	133,758
Allante	75	60	75	330	2,692	1,759
Total Cadillac	5,072	6,033	6,671	30,299	252,394	219,415
Cavalier	8,066	6,612	8,013	35,721	310,937	307,345
Camaro	2,028	2,704	1,838	8,641	87,231	82,575
Celebrity	0	5,439	0	0	70,720	158,774
Corsica/Beretta	8,960	10,096	4,599	17,151	316,387	370,360
Caprice	1,268	4,041	3,084	9,006	146,140	178,961
Corvette	560	527	575	1,899	21,571	19,549
Total Chevrolet	20,882	29,419	18,109	72,419	952,986	1,117,564
Calais	1,679	2,307	1,629	7,363	76,783	99,616
Firenza	0	0	0	0	0	5,230
Cutlass Ciera	1,908	1,647	1,929	5,916	73,535	27,744
Cutlass Supreme	4,118	3,619	4,028	17,612	99,597	123,179
Toronado	420	320	273	1,258	8,071	13,216
88 (fwd)	3,937	3,223	3,613	17,631	123,279	135,693
88 (rwd)	0	161	182	856	6,661	9,720
Olds 98	1,520	1,537	1,523	6,592	62,011	63,393
Total Oldsmobile	13,582	12,814	13,177	57,228	449,937	477,791
Sunbird	4,330	2,391	3,622	16,582	127,823	93,951
Grand Am	4,800	4,912	4,709	21,081	204,695	207,357
Firebird	1,233	1,662	1,362	5,602	49,495	55,532
Grand Prix	0	4,000	4,003	11,720	111,055	122,227
Pontiac 6000	1,498	2,120	1,506	5,015	68,481	78,916
Bonneville	2,150	2,966	1,802	8,574	80,962	103,613
Safari/Parisienne	0	105	0	0	2,691	6,650
Fiero	0	0	0	0	0	13,297
Total Pontiac	14,011	18,156	17,004	68,580	645,202	681,543
GENERAL MOTORS	64,465	78,706	65,554	273,091	2,702,090	2,899,276
DIAMOND-STAR	3,663	0	3,436	13,644	71,687	0
HONDA	7,390	8,822	6,886	30,084	313,412	315,012
Civic	2,910	2,811	3,047	14,711	116,400	93,290
Accord	4,480	6,011	3,839	15,373	197,012	221,722
MAZDA†	4,485	4,784	4,548	19,926	175,749	130,006
NISSAN	2,100	2,032	2,083	9,549	100,205	95,939
NUMMI	3,800	1,668	3,660	15,953	169,130	115,760
Corolla	1,700	1,668	1,640	6,992	68,993	45,190
Geo Prizm/Nova	2,100	0	2,020	8,961	100,137	70,567
TOYOTA	4,095	0	4,113	17,871	123,775	0
VOLKSWAGEN	0	0	0	0	0	35,997
Golf/GTI	0	0	0	0	0	30,444
Jetta	0	0	0	0	0	5,553
Total Cars, U.S.	144,506	157,360	146,148	621,747	5,932,211	6,027,376
Total Cars, Canada	26,728	20,870	23,691	91,780	831,862	904,301
U.S., Canada Cars	171,234	178,230	169,839	713,528	6,764,073	6,931,677
U.S., Canada Cars and Trucks	271,104	287,129	269,880	1,106,570	11,116,724	11,239,746

Monthly estimates may contain error of one or two units due to rounding.
†—Total includes MX-6, 626, and Ford Probe

CANADIAN CAR	Week Ended Nov. 4, 1989	Week Ended Nov. 5, 1988	Week Ended Oct. 28, 1989	Oct. Est.	Jan. 1 to Nov. 4, 1989	Jan. 1 to Nov. 5, 1988
Premier	1,530	1,337	0	1,645	29,812	51,349
CHRYSLER MOTORS	1,530	1,337	0	1,645	29,812	51,349
Tempo	3,360	3,259	3,273	10,422	112,522	148,083
Topaz	1,440	1,588	1,415	4,495	47,901	58,466
Crown Victoria	2,659	2,833	2,332	10,321	100,714	109,475
Grand Marquis	3,101	2,963	2,743	11,574	109,327	111,407
FORD MOTOR CO.	10,560	10,643	9,763	36,812	370,464	427,431
Celebrity	1,061	431	1,005	3,304	20,520	17,988
Cutlass Ciera	2,027	3,427	1,738	6,015	104,480	193,672
Lumina	6,924	0	6,706	26,927	147,300	0
Pontiac 6000	0	0	0	0	0	29,690
Regal	1,796	3,409	1,887	6,038	66,874	139,759
GENERAL MOTORS	11,808	7,267	11,336	42,284	339,174	381,109
HONDA	2,100	1,443	1,894	8,051	71,515	39,074
TOYOTA	550	0	518	2,232	14,023	0
VOLVO	180	180	180	756	6,874	5,338
Total Cars, Canada	26,728	20,870	23,691	91,780	831,862	904,301

U.S. TRUCK☆	Week Ended Nov. 4, 1989	Week Ended Nov. 5, 1988	Week Ended Oct. 28, 1989	Oct. Est.	Jan. 1 to Nov. 4, 1989	Jan. 1 to Nov. 5, 1988
Caravan	2,000	2,314	2,565	10,448	91,217	77,746
Dakota	2,100	2,432	2,025	4,235	79,721	92,499
Caravan C/V	50	244	106	443	5,718	10,519
Ram pickups	1,700	2,434	1,677	3,482	78,792	71,002
Total Dodge	5,850	7,424	6,373	18,608	255,448	251,766
Cherokee	4,100	3,829	0	14,070	183,191	157,997
Comanche	350	775	0	1,362	23,437	38,105
Grand Wagoneer	0	347	0	325	8,452	11,902
Wagoneer	150	221	0	592	6,824	9,345
Total Jeep	4,600	5,172	0	16,349	221,904	217,349
Voyager	1,900	2,062	2,439	10,011	85,379	72,344
Town & Country	25	0	38	151	3,027	0
Total C-P Div.	1,925	2,062	2,477	10,162	88,406	72,344
CHRYSLER MOTORS	12,375	14,658	8,850	45,119	565,758	537,913
Aerostar	4,850	2,628	4,230	16,249	191,199	176,763
Bronco	1,257	1,792	890	4,957	61,724	46,814
Bronco II	2,551	2,640	2,417	10,381	100,850	103,024
Econoline	3,689	5,206	3,198	17,268	188,835	206,608
Mediums/Heavies	1,287	1,307	0	3,029	49,848	56,103
Light trucks	11,127	10,288	10,632	46,664	449,105	419,737
Ranger	6,260	5,557	6,453	27,923	268,438	277,306
Total Ford Div.	31,021	29,418	27,820	128,490	1,307,999	1,286,355
FORD MOTOR CO.	31,021	29,418	27,820	128,490	1,307,999	1,286,355
Astro	2,721	3,654	3,189	13,191	138,950	151,043
Blazer	538	635	522	1,345	23,168	22,635
Mediums/Heavies	319	395	211	1,236	6,269	17,169
P-Model	0	977	0	1,540	25,196	35,816
Pickups	7,803	9,158	7,608	33,753	344,958	312,171
S-10	5,008	6,079	5,580	8,693	207,380	261,505
S-10 Blazer	3,385	3,581	4,348	6,923	151,807	145,056
Sportsvan/Van	1,770	1,703	1,699	7,928	82,329	82,270
Suburban	1,494	1,658	1,484	3,678	64,156	60,626
Total Chevrolet	23,038	27,840	24,639	78,287	1,044,213	1,088,291
Jimmy	164	183	161	319	7,046	6,642
Mediums/Heavies	521	558	349	1,998	10,961	31,171
P-Model	0	66	0	199	3,401	4,526
Pickups	2,207	3,193	2,590	9,756	104,322	95,606
S-15	1,780	2,029	615	1,327	50,963	59,436
S-15 Jimmy	935	1,088	738	1,935	43,433	40,805
Safari	1,039	758	757	3,622	37,572	38,861
Suburban	614	798	566	1,314	26,426	26,841
Vandura/Rally Vans	688	621	761	2,895	25,491	29,315
Total GMC	7,948	9,294	6,537	23,364	309,615	333,205
GENERAL MOTORS	30,986	37,134	31,176	101,651	1,353,828	1,421,496
NAVISTAR	0	1,625	1,514	5,964	67,185	73,658
NISSAN	2,700	2,263	2,542	10,222	103,090	79,147
AM GENERAL*	450	450	450	1,980	19,440	19,710
MISCELLANEOUS*	3,000	2,300	3,000	13,200	123,600	100,740
Total Trucks, U.S.	80,532	87,848	75,352	306,627	3,540,900	3,519,019

CANADIAN TRUCK	Week Ended Nov. 4, 1989	Week Ended Nov. 5, 1988	Week Ended Oct. 28, 1989	Oct. Est.	Jan. 1 to Nov. 4, 1989	Jan. 1 to Nov. 5, 1988
Caravan	3,288	3,109	3,218	13,373	124,471	120,514
Caravan C/V	132	187	100	425	8,861	10,499
Ram Wagon	500	638	374	2,019	22,163	22,561
Ram Van	1,850	1,774	2,008	8,009	62,911	61,693
Total Dodge	5,770	5,708	5,700	23,826	218,406	215,267
Voyager	2,724	2,546	2,757	11,188	107,344	108,760
Total Plymouth	2,724	2,546	2,757	11,188	107,344	108,760
Wrangler	0	1,271	0	1,240	63,513	43,640
Total Jeep	0	1,271	0	1,240	63,513	43,640
CHRYSLER MOTORS	8,494	9,525	8,457	36,254	363	367,667
FORD MTR. (lt. trks.)	3,648	3,611	8,457	19,185	139,130	138,035
Light trucks	3,677	3,596	3,948	15,525	136,074	131,705
Vans	1,429	1,586	1,668	6,048	51,050	50,837
Total Chevrolet	5,106	5,182	5,616	21,572	189,124	182,542
Light trucks	1,569	1,745	1,418	6,457	61,566	65,492
Vans	521	716	539	2,226	23,315	25,388
Total GMC	2,090	2,461	1,957	8,683	84,881	90,880
GENERAL MOTORS	7,196	7,643	7,573	30,255	274,005	273,422
NAVISTAR	0	272	202	721	9,353	9,926
Total Trks., Canada	19,338	21,051	24,689	86,415	811,751	789,050
U.S., Canada Trks.	99,870	108,899	100,041	393,042	4,352,651	4,308,069

☆—Includes window van production *—Estimated
Jeep includes commercial only. AM General includes government-destined vehicles.
Miscellaneous includes estimates for Mack, Volvo-White, Kenworth, Peterbilt, Freightliner, Mercedes-Benz, etc.
Monthly estimates may contain error of one or two units due to rounding.